



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,945	12/31/2003	Se Woong Park	HI-0177	6959
34610	7590	05/27/2009	EXAMINER	
KED & ASSOCIATES, LLP			PASIEWICZ, DANIEL M	
P.O. Box 221200			ART UNIT	PAPER NUMBER
Chantilly, VA 20153-1200			2622	
MAIL DATE		DELIVERY MODE		
05/27/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/747,945	Applicant(s) PARK, SE WOONG
	Examiner DANIEL M. PASIEWICZ	Art Unit 2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 April 2009.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4,6-12,20 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4,6-12,20 and 22-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/21/2009 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 20-24 have been considered but are moot in view of the new ground(s) of rejection.
3. Applicant's arguments filed 4/21/2009 have been fully considered but they are not persuasive.
4. With respect to **claim 1** Applicant argues "Sasaki does not disclose or suggest a driving barrel configured to support a single alignment of at least one lens, a relative position of which is fixed, the single alignment of the at least one lens being configured to serve as a wide-angle lens at all times, and a moving device comprising a single drive motor configured to reciprocatingly move the driving barrel to perform both focus and zoom operations at the same time".
5. The Examiner respectfully disagrees with Applicant's argument. The claim is written broadly enough where Sasaki still discloses the added limitations. For the sake

of brevity, as said limitations need to be added to the rejection below, they will not be discussed as to how Sasaki discloses the newly added limitations in this section. Please refer to the rejection below for details as to how Sasaki discloses the limitations.

6. **Claims 2-4, 6-312 and 25** are not patentable for similar reasons as that of **claim 1.**

Claim Objections

7. **Claim 10** is objected to because of the following informalities: minor typographical error.
8. **Claim 10** states "at lest one lens" instead of "at least one lens".
9. Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 1-2, 4 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,267,085 to Sasaki et al.**
12. As stated in the MPEP § 2111.02 (please see also Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 – CCPA 1951), if the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim; then the preamble of the claim is not served to further define the structure of the claim.

Thus, in regards to claims 1-11, the preamble of the claim is not given any patentable weight since the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim.

13. With respect to **claim 1** **Sasaki** discloses, in Fig. 4, an iris recognition camera, comprising: a driving barrel (Fig. 4) configured to support a single alignment of at least one lens (L1 or L2) (column 7 line 43 through column 8 line 45; wherein a single alignment comprises moving the lens L1 and L2 to the proper position as indicated by a user determined zoom location through switch 32), a relative position of which is fixed (column 5 lines 43-47 and column 6 lines 22-23; where the limitation is written broadly enough where how the at least one lens is fixed is not defined, thus the Examiner interprets lens L1 and L2 as having their relative positions be fixed within first and second holding frame 10 and 18 respectively), the single alignment of the at least one lens being configured to serve as a wide-angle lens at all times (column 5 lines 18-22 and column 8 lines 5-11; where the lens system focuses in the telescopic side and wide angle side, thus the lenses are wide angles lenses; additionally, as written the limitation merely states the lens is configured to serve a wide-angle lens at all times, but it is not required to; as the lenses L1 and L2 are capable of being a wide-angle lens they are also capable of being a wide-angle lens at all times, thus they meet the limitation of the claim); a moving device comprising a single drive motor (Mz) configured to reciprocatingly move the driving barrel to perform both focus and zoom operations at the same time (column 5 lines 18-25, lines 32-34 and lines 59-61 and column 6 lines 1-3; where as can be seen in Fig. 4, movement from motor Mz will move both lenses

affecting the zoom, which inherently also affects the focal length, thus both a focus and zoom operation are performed at the same time if motor Mz is operated); and a position sensor (22) configured to detect a position of the driving barrel (Fig. 4) within the camera (column 6 lines 29-46; where the magnetic resistance element detects the position of the driving barrel by detecting the position of the first holding frame 10 on the optical axis).

14. With respect to **claim 2 Sasaki** discloses, in Fig. 4, the iris recognition camera according to claim 1, wherein the moving device comprises: the single drive motor (Mz); a lead screw (2) connected to the motor (Mz) at one end; and a rack (11) coupled to an outer circumference of the lead screw (2).

15. With respect to **claim 4 Sasaki** discloses, in Fig. 4, The iris recognition camera according to claim 1, wherein the driving barrel is provided at one side with a detecting portion (21) configured to communicate with the position sensor (22) so that the position sensor (22) detects a position of the driving barrel (column 6 lines 31-46).

16. With respect to **claim 7 Sasaki** discloses, in Fig. 4, the iris recognition camera according to claim 1, further comprising one or more guide bars (2, 6 and 12) configured to guide the driving barrel during reciprocating movement (column 5 line 23 through column 6 line 30; where the anti rotation bar 6 and lead screws 2 and 12 guide the lenses during reciprocating movement of the driving barrel).

17. With respect to **claim 8 Sasaki** discloses, in Fig. 4, the iris recognition camera according to claim 7, wherein the one or more guide bars (2, 6 and 12) comprises a pair

Art Unit: 2622

of guide bars (2 and 6), respectively, positioned on opposite sides of the driving barrel (fig. 4).

18. With respect to **claim 9** Sasaki discloses, in Fig. 4, the iris recognition camera according to claim 1, wherein the position sensor (22) is positioned behind the lens (Fig. 4; where the sensor 22 can be seen as positioned behind both lens L1 and L2 with respect from the top of body tube 1).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. **Claim 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,267,085 to Sasaki et al.**

21. With respect to **claim 3** Sasaki discloses an iris recognition camera, comprising: a driving barrel configured to support a lens; a moving device configured to reciprocatingly move the driving barrel to perform both focus and zoom operations; and a position sensor configured to detect a position of the driving barrel within the camera; and wherein the moving device comprises: a motor; a lead screw connected to the motor at one end; and a rack coupled to an outer circumference of the lead screw.

22. **Sasaki does not expressly disclose wherein the motor comprises a step motor.**

Art Unit: 2622

23. However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of using a step motor in a lens barrel to adjust the lenses are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have a step motor as the motors Mz and Mf of **Sasaki** as one of ordinary skill in the lens barrel art would instantly recognize a simple means to accurately control the lens positions through use of a common controller.

24. With respect to **claim 6 Sasaki** discloses, in Fig. 4, the iris recognition camera according to claim 1, wherein the single alignment of at least one lens has a focusing distance of 40 mm (column 4 line 60 through column 5 line 2).

25. **Sasaki** does not expressly disclose the focusing distance is 11.8.+1 mm.

26. However, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have the focusing distance is 11.8.+1 mm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

27. **Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,267,085 to Sasaki et al in view of U.S. Patent 6,850,631 to Oda et al.**

28. With respect to **claim 10 Sasaki** does not expressly disclose wherein the alignment of the at least one lens has an image pickup distance range of 20-70cm. However, Oda teaches an iris input device in which the focal length of the lens is fixed at a value within approximately 0.5 to 50 cm (Oda, col. 4 lines .28-29).

29. Therefore, taking the teachings of Sasaki and Oda, it would have been obvious to one of ordinary skill in the art to have a lens with a pickup distance range of about 20-70 cm in order to get a proper reading of the iris, anything less than 20 cm may cause an inaccurate reading, or cause the eye to come into contact with the iris recognition camera (Oda, col. 4 lines 28-46) and "[i]n the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)" MPEP 2144.05.

30. **Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,267,085 to Sasaki et al in view of U.S. Patent Application Publication 2002/0135693 A1 to Ohkawara et al.**

31. With respect to **claim 11 Sasaki** does not expressly disclose wherein the position sensor comprises one of an optical sensor and a contact sensor.

32. However, in analogous art, **Ohkawara** discloses, in Fig. 17-18, an optical sensor which is used to determine the position of a lens within a lens barrel (paragraphs 202-210). At the time the invention was made it would have been obvious to one of ordinary skill in the art to have used a optical sensor as taught by **Ohkawara** as the sensor for detecting the lenses disclosed by **Sasaki**, for doing so would provide a small and power efficient sensor, thus reducing the size and power consumption of the system.

33. **Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,267,085 to Sasaki et al in view of U.S. Patent 6,930,707 to Bates et al.**

34. With respect to **claim 12 Sasaki** does not expressly disclose the lens barrel is used for an iris recognition camera in an iris recognition system.
35. In analogous art, **Bates** discloses, in Fig. 5, using a lens barrel for iris recognition (column 5 lines 32-52). As stated in **Bates** (column 10 lines 17-34) at the time the invention was made it would have been obvious to one of ordinary skill in the art to have used the lens barrel of **Sasaki** for iris recognition as taught by **Bates**, for doing so would provide anti-theft or privacy implementation without adding any cost to the camera.
36. **Claims 20 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0135693 A1 to Ohkawara et al in view of U.S. Patent 6,930,707 to Bates et al in further view of U.S. Patent 5,267,085 to Sasaki et al.**
37. With respect to **claim 20 Ohkawara** discloses, in Fig. 17-18, discloses, in Fig. 17-18, a method of operation for a camera, comprising: detecting a user (paragraph 75 and 191; where it is detected is a wide-angle lens is mounted when the signal is sent to the AF microcontroller 115 from detecting switch 123; thus, a wide-angle lens user is detected when the wide angle lens is attached); moving a camera lens (101 and 104) to an initial position detected by a position sensor (115) after the position sensor (115) detects the user (paragraph 75, 191 and 194; where the AF controller 115 controls the lenses to return to their respective predetermined positions after the wide angle user is detected from attaching the wide angle lens); thereafter reciprocatingly moving the camera lens (101 and 104) to perform both focus and zoom operations from the initial position to an image pickup location where a object can be captured (paragraph 203-

205); and performing the image pickup using an image pickup device (paragraph 70-71; where it is inherent to capturing video signals to perform image pickup after focusing).

38. **Ohkawara** does not expressly disclose the camera is used as an iris recognition camera and where a user's iris is captured.

39. In analogous art, **Bates** discloses, in Fig. 5, using a lens barrel for iris recognition camera which is used to capture a user's iris (column 5 lines 32-52). As stated in **Bates** (column 10 lines 17-34) at the time the invention was made it would have been obvious to one of ordinary skill in the art to have used the lens barrel of **Ohkawara** for iris recognition as taught by **Bates**, for doing so would provide anti-theft or privacy implementation without adding any cost to the camera.

40. Additionally, neither Ohkawara nor Bates expressly disclose use of a single motor for both focusing and zooming.

41. However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of using a single drive motor to perform both a focus and zoom operation in a camera are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have used a single motor to perform both the focus and zoom operation as it would reduce the size of the lens unit, which allows for incorporation into more devices that require a small form factor.

42. **Examiner's note:** evidence of such a concept and advantage can be found in US Patent 6,011,657 to Labaziewicz which states in column 2 lines 25-38: "[i]t is an object of the present invention to provide a zoom mechanism that provides for zooming and focusing with a single motor while minimizing focusing lens travel".

43. Neither Ohkawara or Bates expressly disclose wherein the lens has a single alignment of at least one lens, a relative position of which is fixed, the single alignment of the at least one lens being configured to serve as a wide-angle lens at all times.

44. In analogous art **Sasaki teaches** a driving barrel (Fig. 4) configured to support a single alignment of at least one lens (L1 or L2) (column 7 line 43 through column 8 line 45; wherein a single alignment comprises moving the lens L1 and L2 to the proper position as indicated by a user determined zoom location through switch 32), a relative position of which is fixed (column 5 lines 43-47 and column 6 lines 22-23; where the limitation is written broadly enough where how the at least one lens is fixed is not defined, thus the Examiner interprets lens L1 and L2 as having their relative positions be fixed within first and second holding frame 10 and 18 respectively), the single alignment of the at least one lens being configured to serve as a wide-angle lens at all times (column 5 lines 18-22 and column 8 lines 5-11; where the lens system focuses in the telescopic side and wide angle side, thus the lenses are wide angles lenses; additionally, as written the limitation merely states the lens is configured to serve a wide-angle lens at all times, but it is not required to; as the lenses L1 and L2 are capable of being a wide-angle lens they are also capable of being a wide-angle lens at all times, thus they meet the limitation of the claim); a moving device comprising a drive motors (Mz and Mf) configured to reciprocatingly move the driving barrel to perform both focus and zoom operations(column 5 lines 18-25, lines 32-34 and lines 59-61 and column 6 lines 1-3). Therefore, **Sasaki** teach wherein the lens has a single alignment of

Art Unit: 2622

at least one lens, a relative position of which is fixed, the single alignment of the at least one lens being configured to serve as a wide-angle lens at all times.

45. As stated in Sasaki (column 9 line 66 through column 10 line 2) at the time the invention was made it would have been obvious to one of ordinary skill in the art to have used a structure as taught by **Sasaki** with moving the lenses of **Ohkawara** in view of **Bates**, for doing so would provide a zoom lens device of a two-lens grouped structure in which the zoom lens device is made compact and a zoom ratio is increased.

46. With respect to **claim 22 Ohkawara** discloses wherein the image pickup device comprises a charge-coupled device (paragraph 70-71).

47. With respect to **claim 23 Ohkawara** discloses wherein the driving motor comprises a step motor (paragraph 66 and 69).

48. With respect to **claim 24 Ohkawara** discloses wherein the iris recognition camera further comprises a power transmission configured to transmit power for moving the camera lens (paragraph 66 and 69; where the step motors transmit power to move the lenses).

49. With respect to **claim 25 Sasaki** teaches controlling lens position though a transmission device including a lead screw (2) configured to be rotated by power from a driving motor (Mz), and rack screw (12) coupled to an outer circumference of lead screw (2) (Fig. 4 and column 5 line 23 through column 6 line 30; where the lens L2 is controlled via screw 12 which is coupled to the outer circumference of screw 2 via first holding frame 10 as seen in Fig. 4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL M. PASIEWICZ whose telephone number is (571)272-5516. The examiner can normally be reached on M-F 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DMP
May 20, 2009

/Sinh Tran/
Supervisory Patent Examiner, Art Unit 2622